

## Bird species of Hutan Kota BNI Banda Aceh, Indonesia

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**Abstract.** Hutan kota BNI is one of Kota Banda Aceh City Park. It takes place in Tibang village Syiah Kuala district, Banda Aceh, Indonesia. It used to be fishpond with mangrove trees planted inside the fish pond. After tsunami all mangrove trees were destroyed and this area have become terrestrial zone. Since 2010 many plants were replanted and attracted many birds to came to this area. Data collection by using transect method was performed since January until June 2012. In this study 26 bird species (14 families) were found within this area. Some of birds are migratory and protected birds.

**Keywords:** *Lonchura maja*, *Orthotomus sutorius*, *Passer montanus*, Mangrove

### Introduction

Hutan Kota BNI covered 6.15 ha in Tibang village , Syiah Kuala, Banda Aceh City (05°34'56.2" -05°35'9.3 LU and 95°20'47.5" – 95°21'0" BT). After tsunami this area was filled with soil. Many tree species were replanted since April 2010. About 3660 trees and 147 species have already planted within this area. North side of this city park remain as fishpond area with mangrove trees replanted after tsunami (Yayasan Bustanussalatin, 2011).

As new habitat that was created by human, hutan Kota BNI serves many needs for animals especially birds with food, shelter and breeding site. Many plants that were replanted produce nectar, flower, seed and fruit as food source for birds. Other animals such as insects that live on plants also serve as food for the birds. The objective of this research is to explore bird species that attracted to new habitat of Hutan Kota BNI.

### Materials and Methods

The research was performed since January until June 2012. Data collection were done by visiting Hutan Kota BNI on monthly from 08.00-10.00 am. Line transect method was used and each bird found along the transect were recorded. Bird identification was done by using MacKinnon *et al.* (2000).

### Results and Discussion

During January until June 2012, this research area were visited seven times. Only on May 2012 data collection failed to performed due to heavy rain with high rate of wind. At this location 26 bird species (16 families) were found (table 1). Some of them are protected and migratory birds. Alcedinidae, Nectariniidae, *Egretta* spp. and *Bubulcus ibis* are protected birds (Appendix Peraturan pemerintah no 7 tahun 1999). *Merops philippinus* and *Hirundo rustica* are migratory birds (Holmes and Nash, 1999; MacKinnon, 2000).

*Lonchura maja*, *Lonchura punctulata* *Passer montanus* and *Bubulcus ibis* presence all visted time in the research area. *Lonchura maja* and *Lonchura punctulata*, as seed eaters , usually eat grass seed in feeding flock up to 50 birds. Weaver birds (*Ploceus manyar*) were only seen to join the feeding flock on January 2012. Feeding flock always perform in early morning. Almost all research area covered with grass and their feeding flock always move from one to another spot all together. *Passer montanus* always associates to building that serve as shelter in north and south sides of Hutan Kota BNI. Some times they flew down and search for food on the ground. *Bubulcus ibis* breeds outer Hutan Kota BNI and always fly over research area. They use mangrove trees planted inside fishpond as nest trees. In preliminary research 2010, *Bubulcus ibis* were seen searching for food on the Hutan Kota BNI . They ate tiny animals such as insect on the ground. They never seen search for food in Hutan Kota BNI during January-June 2012. They usually seen in paddy field within Kota Banda Aceh or Aceh Besar as feeding site.

Table 1. List of bird species that were found during January-June 2012 in Hutan Kota BNI Banda Aceh.

Bird species	Familia	Data collection date						
		25 jan	30 jan	29 feb	7 mar	29 Mar	26 apr	13 jun
<i>Acridotheres javanicus</i>	sturnidae							
<i>Amaurornis phoenicurus</i>	turnicidae							
<i>Anthus novaeseelandiae</i>	pachycephalidae							
<i>Ardea purpurea</i>	ardeidae							
<i>Bubulcus ibis</i>	ardeidae							
<i>Columba livia</i>	columbidae							
<i>Egretta garzetta</i>	ardeidae							
<i>Egretta intermedia</i>	ardeidae							
<i>Geopelia striata</i>	columbidae							
<i>Hirundo rustica</i>	hirundinidae							
<i>Hirundo tahitica</i>	hirundinidae							
<i>Ixobrychus cinnamomeus</i>	ardeidae							
<i>Lanius cristatus</i>	laniidae							
<i>Lonchura maja</i>	ploceidae							
<i>Lonchura punctulata</i>	ploceidae							
<i>Merops philippinus</i>	meropidae							
<i>Nectarinia jugularis</i>	nectariniidae							
<i>Orthotomus ruficeps</i>	silviidae							
<i>Orthotomus sutorius</i>	silviidae							
<i>Passer montanus</i>	ploceidae							
<i>Ploceus manyar</i>	ploceidae							
<i>Prinia familiaris</i>	silviidae							
<i>Pycnonotus aurigaster</i>	pycnonotidae							
<i>Pycnonotus goiavier</i>	pycnonotidae							
<i>Todirhampus chloris</i>	alcedinidae							

*Pycnonotus goiavier*, *Pycnonotus aurigaster*, *Prinia familiaris* presence up to 87 % of visiting time. They use trees as perching and feeding site. *Pycnonotus goiavier* eat fruit such as *Mimusops elengi*. *Pycnonotus aurigaster* always found in flock and always looked busy and noisy. *Prinia familiaris* always give loud call among themselves by perching on the canopy of different trees. Some times *P. familiaris* flew down and searched for food on the grass.

*Amaurornis phoenicurus*, *Egretta garzetta* and *Ixobrychus cinnamomeus* were seen in fishpond. *A. phoenicurus* always hide inside mangrove trees and only step out when searching for food. They hide again as soon as they get food. They usually walk on the mud when the fish pond does not fill with sea water. *Egretta garzetta* always seen in fish pond searching for food. They usually catch fish while water level in the fish pond low enough. They are always searching their food alone, never in flock. *Ixobrychus cinnamomeus* perched on mangrove root while searching for food. *Nectarinia jugularis* always visited flower to gain nectar. Sometimes they also eat tiny animals such insects as protein source. Loud sound "cuiit-cuiit" always perform when they visited flowering plant. Male bird has dark colour covered their throat and chest. Female only has yellowish feather on their throat and chest. Sometimes both male and female feed together, especially during breeding season. Breeding season for this bird happens in Syiah Kuala University between January and May every year. *Acridotheres javanicus* has white spot on their wings while flapping their wings. They usually use highest trees to perch. During this research they never perch on trees that grew in Hutan

Kota BNI . It may be due to the height of the trees not suitable enough for them. The tallest trees in hutan Kota BNI are *Casuarina equisetifolia*. There is possibility in the future when the trees are tall enough as their need, they will stay in this area. They eat insects and fruit.

*Geopelia striata* as seed eater are walking on the earth and pecking the soil while searching for food. They like to come to open area, alone or in flock, walk slowly and fly to nearby trees when they are disturbed. Their sound sometimes is heard from the distance "tru ku tru tru tru". *Lanius cristatus* is only seen on January . This bird perched alone on tree canopy for few hours. The reason may be this bird just passing by and using this area as transit or resting area.

Based on list of bird species found in Hutan Kota BNI almost all birds had ability to consumed wide range of food such as insect, fruit, seed and nectar that provided by Hutan Kota BNI. *Lonchura maja*, *Lonchura punctulata* ,*Passer montanus* ate seed. *Pycnonotus goiavier* and *P. aurigaster* ate fruits and insects. During January-june 2012 only one bird nest was found . It was built in flowering plant as high as 50 cm above the ground. It was cup-shaped nest and the major nest materials are grass. The nest is already empty and thought to be *Prinia familiaris* nest due to one fledgling with tail feather found not fully grown that was around the nest. Both parents were seen to bring food and they persuaded their chick to fly. According to Yayasan Bustanussalatin, some birds already breed in this area in 2010. The occurrence of breeding species in urban parks depends on the size of the park, park structure, and landscape structure outside the park. (Jokimaki, 1999). It seems that some species already adapted in their new habitat and found their new habitat supporting their life.

## Conclusions

The bird species that always presence in Hutan Kota BNI are mainly herbivorous ( seed and fruit eater) and insectivorous . The ability of some species to breed in Hutan Kota BNI showed that this location is a new habitat and support the continuing life of bird species. Monitoring bird species continuously can give important data on succession study of bird in new habitat.

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